CLAIMS

1. A method for producing a porous film, comprising the steps of casting a polymer solution comprising a polymer onto a substrate to form a film; and subjecting the film to phase conversion to thereby form a porous film, wherein the polymer constituting the porous film has a surface tension Sa [mN/m], wherein the substrate has a surface tension Sb [mN/m], and wherein Sa and Sb satisfy the following condition: $Sa-Sb \geq -10$.

2. The method for producing a porous film according to claim 1, further comprising the steps of casting a solution mixture as the polymer solution onto the substrate to form a film, and subjecting the film to phase conversion by bringing the film to a solidifying liquid to thereby form a porous film, the solution mixture comprising 8 to 25 percent by weight of a polymer component for constituting the porous film, 10 to 50 percent by weight of a water-soluble polymer, 0 to 10 percent by weight of water and 30 to 82 percent by weight of a water-soluble polar solvent.

3. The method for producing a porous film according to one of claims 1 and 2, further comprising the steps of holding the cast film in an atmosphere at a relative humidity of 70% to 100% and a temperature of 15°C to 90°C for 0.2 to 15 minutes, and bringing the film to a solidifying

liquid comprising a nonsolvent for the polymer component.

4. A porous film having a large number of continuous micropores, wherein the film has a thickness of 5 to 200 μm, has an average surface pore size A of 0.01 to 10 μm and an average rate of surface hole area C and has an average inside pore size B and an average rate of inside hole area D, wherein the ratio A/B of A to B is in the range of 0.3 to 3, and wherein the ratio C/D of C to D is in the range of 0.7 to 1.5.

5. A porous film having a large number of continuous micropores, wherein the film has a thickness of 5 to 200 μm, has an average pore size A^1 of 0.01 to 10 μm at one surface, an average pore size A^2 of 0.01 to 10 μm at the other surface, an average rate of hole area C^1 of 48% or more at one surface, and an average rate of hole area C^2 of 48% or more at the other surface, wherein the ratio A^1/A^2 of A^1 to A^2 is in the range of 0.3 to 3, and wherein the ratio C^1/C^2 of C^1 to C^2 is in the range of 0.7 to 1.5.